UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

January 25, 2005

Mr. Clinton Twilley
Quality Assurance Manager
Office of the Secretary
Louisiana Department of Environmental Quality
P.O. Box 4301
Baton Rouge, LA 70821-4301

Dear Mr. Twilley:

The Region Quality Assurance Staff has reviewed the Louisiana Department of Environmental (LDEQ) Quality Management Plan (QMP), which was assigned the QTRAK number of 05-092. In their review of your QMP, the QA staff found it to adequately describe the quality system for your organization, is in compliance with *EPA Requirements for Quality Management Plans, EPA QA/R-2* and therefore; they have recommended that the document be approved as submitted.

I am enclosing a copy of the QMP signature page, with my approval signature, for your records. We appreciate LDEQ's effort in keeping this document current. If you have any questions or concerns, Dr. Romig, who reviewed you QMP, may be reached at (214) 665-8346, or you can reach me at (214) 665-8343.

Sincerely yours,

Donald L. Johnson
Region 6 Quality Assurance Manager

enclosure

cc: Arlene Gaines (6WQ-AT)

Louisiana Department of Environmental Quality

Quality Management Plan

REVISION 5

December 2004

Prepared By:

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Clinton Twilley, QA Manager

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Approval Page

Louisiana Department of Environmental Quality
Quality Management Plan
Revision 5

CONCURRENCE:

Mike D. McDaniel — 12-22-04
Dr. Mike McDaniel, Secretary, LDEQ — Date

Karen Gautreaux — 12/17/04
Karen Gautreaux, Deputy Secretary, LDEQ — Date

Cy Buchert — 12/17/04
Cy Buchert, Undersecretary
Office of Management and Finance, LDEQ — Date

12/14/04
Dr. Chuck Carr Brown, Assistant Secretary
Office of Environmental Services, LDEQ — Date

Harold Leggett — 12/14/04
Dr. Harold Leggett, Assistant Secretary
Office of Environmental Compliance, LDEQ — Date

Wilbert Jordan — 12/20/04
Wilbert Jordan, Esq., Assistant Secretary
Office of Environmental Assessment, LDEQ — Date

Clinton Twilley — 12/6/04
Clinton Twilley, QA Manager, LDEQ — Date

Don Johnson — 1/25/05
Don Johnson, QA Manager, EPA Region 6 — Date

EPA Q-TRAK NO. 05-092

Document Review and Revision Record

Note: Actions older than 5 years may be removed from this record

Date	Revision No.	Record of Activity
08/06/98	0	Initial document approved.
09/20/99	0	Broad revisions throughout document. *Note: Document revision numbered 0 in error, rather than 1, but document date is correct.*
01/25/02	2	Recertified without changes.
12/17/02	3	Broad revision throughout document to incorporate ISO 9001:2000 requirements and update organizational information.
02/11/04	4	Broad revision throughout document to update program information.
1/25/2005	5	Address EPA comments by changes to Section 7.4, 8.0, 9.0 and Appendix A. Project planning checklists were added to Appendix E. Also, the approval page and Appendix B were updated for the organizational changes.

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Introduction

This Quality Management Plan (QMP) describes a quality system established by Executive Management to ensure that collection, analysis and use of environmental data is sufficient for its intended uses and meets the needs of its customers, both internally and externally. The plan provides a structured process that outlines procedures to use to ensure quality data, the means to verify accuracy and completeness, and corrective action procedures to promote continual improvement. The plan conforms to the EPA requirements for QMPs, EPA QA/R-2.

The QMP contains 10 main sections organized to meet the provisions of the EPA QA/R-2 requirements document, and national guidelines (ANSI/ASQC E4-1994) for quality assurance:

1. Management and Organization
2. Quality Assurance System and Description
3. Personnel Qualifications and Training
4. Procurement of Items and Services
5. Documents and Records
6. Computer Hardware and Software
7. Planning
8. Implementation of Work Processes
9. Assessment and Response
10. Quality Improvement

Additionally, the QMP includes a Document Review and Revision Record, a Reference section, and Appendix items.

1.0 Management and Organization

Quality in environmental programs contributes to public health and safety, economic development, efficient use of public funds and resources, technical credibility, and recognition of excellence in environmental improvement. The achievement of quality in environmental programs is the responsibility of each employee of LDEQ.

1.1 Applicability

This plan is intended to meet all quality assurance requirements of federal and state agencies. Activities governed by this QMP include environmental data operations, characterization of environmental processes and conditions, design and construction of engineered environmental systems, environmental monitoring, and laboratory analyses. Agency offices and staff and external contractors are bound by the requirements in this QMP. EPA environmental programs governed by this QMP are listed in Appendix A.

1.2 LDEQ Organization and Function

The LDEQ is the primary environmental regulatory agency of the State of Louisiana. Operations of LDEQ are under the management of the LDEQ Secretary, who is appointed by the Governor.

The LDEQ consists of five offices: Office of the Secretary (OSEC), Office of Management and Finance (OMF), Office of Environmental Compliance (OEC), Office of Environmental Services (OES), and Office of Environmental Assessment (OEA) (Appendix B). The LDEQ executive staff members within each office, who are appointed by the Governor, assign authority for environmental programs, projects and grants to administrators, supervisors and managers, and they designate quality assurance (QA) staff for their respective offices.

1.3 Responsibilities and Authorities

The Executive Management team is composed of six members including the Secretary, Deputy Secretary, Undersecretary, and the Assistant Secretaries of OEA, OEC, and OES. They are responsible for the following quality system functions:

- Communicating to the organization the importance of meeting customer, statutory, and regulatory requirements;
- Establishing mission, philosophy, goals and objectives, as outlined in the Strategic Plan;
- Ensuring the quality goals and objectives are met;
- Providing guidance relative to office management system reviews; and
- Ensuring adequate resources (staff, equipment, and facilities) to accomplish quality goals and objectives.

The responsibilities of the five offices and their divisions are described in Appendix B. Appendix B also includes Internet links to the office organizational charts which are located on LDEQ's website.

1.4 Quality Assurance Organization

The QA Manager is the quality system representative and coordinates the quality assurance activities and the QA Team (QAT). The QA Team is composed of the QA Officers, representing the offices of LDEQ, and the QA Manager. The QA Team has access and authority to ensure development and implementation of the agency quality assurance program. The QA Team has access to all work areas and responsibility to identify, initiate, and support development of solutions to quality problems and to verify the implementation of solutions to problems. The QA dispute resolution process is presented in subsection 1.6.

QA Representatives are designated at the division and/or section/unit level to support the QA Officers as part of their overall duties. The QA Representatives within each division report to division level Administrators, Managers, or Supervisors and are responsible for their respective quality assurance activities. All LDEQ staff members have QA responsibilities as described in Appendix C.

1.5 Resources

The Secretary and Executive Management must ensure that resources are adequate (i. e., meet customer needs and expectations) to achieve and maintain quality standards in environmental programs. Resource allocations for quality assurance and quality control activities, including resources allocated to QA programs and personnel, are determined on an annual basis at the agency, office, and division levels and are adjusted as needed to achieve objectives. These resources are focused on maintaining and improving the quality management system and enhancing customer satisfaction by meeting customer requirements within budgetary, statutory and regulatory limits.

1.6 Quality Assurance Dispute Resolution Process

Disputes concerning quality assurance issues are described and shall be managed as follows:

- **Intra-office QA disputes**: The QA Representative for each section or unit, with concurrence from the QA Officer, shall attempt to resolve the dispute. If the QA Representatives are unable to resolve the dispute, the QA Representatives shall refer the matter to the QA Officer, who shall resolve the dispute with concurrence from the Administrators.

- **Cross-office QA disputes**: Some QA issues may involve the responsibilities of more than one office. In such a dispute, the QA Officers for the affected

offices shall attempt to resolve the dispute. If the QA Officers are unable to resolve the dispute, the matter shall be referred to the QA Manager, who shall resolve the dispute with concurrence from the Executive Management.

- **EPA and LDEQ QA disputes:** Some QA issues may include projects involving managers or technical staff from EPA and LDEQ. In such a dispute, the LDEQ QA Manager will coordinate discussion with EPA and LDEQ QA and technical staff to resolve the dispute. If the group is unable to resolve the dispute, the EPA QA Manager will resolve the matter.

- **Documentation and procedures**: Department-wide consistency with the objectives and procedures of the QMP shall be primary in all cases of dispute resolution.

- **Minor issues**: Disputes resolved by means of guidance and direction by the QA Officers require no special documentation, unless they are of a recurring nature. For issues of a recurring nature, the QA Officer(s) should consider measures to prevent recurrence, e.g., training and clarification of QA documentation, and should document any proposed corrective or preventive measures to the QA Manager.

- **Significant issues**: Disputes involving nonconformance with the QMP shall be documented and handled. In seeking resolution or corrective action, the QA Manager will consult with the QA Officers, and may consult with Executive Management, as appropriate. The QA Manager will document the resolution of the issue, including any recommendations, and shall request a follow-up report on the implementation of the resolution or corrective action.

2.0 Quality Assurance System and Description

A quality system provides the framework for planning, implementing, and assessing work done by an organization and for carrying out the required quality assurance and quality control. The LDEQ is implementing a quality system to ensure that environmental programs produce the required results.

2.1 Quality System Components

The principal components of the LDEQ quality system include planning, implementation and assessment. The system has been designed to manage the activities or processes identified in Appendix A.

2.1.1 Planning

The planning tools are:

- Strategic Plan and Operational Plan;

- Quality Management Plan (QMP);
- Quality Assurance Project Plans (QAPPs); and
- Sampling and analysis plans.

2.1.1.1 Strategic and Operational Plans

LDEQ's Strategic Plan and Operational Plan are developed for the purposes, as follows:

- The Strategic Plan is a 5-year plan for self-assessment, goal setting, and strategy building. It is built through consideration of the Department's purpose, capacities, and operating environment and is statutorily required.
- The Operational Plan is an annual plan that identifies current Strategic Plan objectives, establishes the Department's operating budget proposals and must be approved by the Legislature.

Quality goals and objectives are developed using the Strategic and Operational Plans as a basis. Executive Management identifies them as part of the management review process.

2.1.1.2 Quality Management Plan

The QMP describes the quality system that includes the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, and assessing all environmental activities that are covered by this document. LDEQ uses this QMP to plan, implement, and assess the effectiveness of the department's efforts related to collection, analysis, and use of data within its environmental programs.

2.1.1.3 Quality Assurance Project Plans

QAPPs document how quality assurance and quality control activities will be implemented for collection of environmental data during the life cycle of a program, project, or task. QAPPs may be generic for an entire program or specific for each project. A systematic planning process must be used in the development of QAPPs to identify specific details about data users and uses that will be incorporated into the QAPP. The QAPP development and the associated systematic planning process are described in Section 7.0.

2.1.1.4 Sampling and Analysis Plans

These plans provide specific details for environmental monitoring events not included in the generic QAPP, including, but not limited to, site location, sampling protocol, equipment, personnel, resources and schedules.

2.1.2 Implementation

Implementation incorporates use of the QMP, QAPPs, Sampling and Analysis Plans, agency polices, and standard operating procedures (SOPs). Policies and SOPs are used to implement quality control requirements stated in the QAPPs or to manage processes identified in this QMP. Section 5.0 provides information related to SOP development.

2.1.3 Assessment

The assessment process is described in Section 9. LDEQ uses management system assessments (MSAs) and technical program assessments (TSAs) to ensure that processes and elements of the quality system are adequate for their intended purposes. These internal audit results are summarized in the annual quality system report to executive management.

2.2 Annual Quality System Report

The QA Manager shall provide Executive Management with an annual report on the effectiveness of the quality system (results of internal audits, customer comments, status of any corrective actions and improvement plans, and the adequacy of resources assigned to achievement of the quality system.

Executive Management reviews the report as part of the management review process to determine the following:

- that the quality system continues to be adequate;
- that opportunities and recommendations for corrective actions are timely and appropriate;
- that resources are adequate; and
- that the agency's quality goals and objectives are being met and determine whether any changes or additions are needed.

Executive Management and the QA Manager will produce a summary document that includes any decisions or actions related to improvement of the effectiveness of the quality system, improvement of the services related to the customers, and resource needs. The summary document will be part of the annual quality assurance report maintained by the agency.

3.0 Personnel Qualifications and Training

LDEQ personnel performing work in environmental programs shall be qualified and competent to perform assigned work. Initial and ongoing personnel qualifications shall be determined, training needs shall be identified, access to appropriate training

opportunities shall be provided, and the acquisition of needed knowledge and skills shall be verified.

Competency is verified with the following processes:

- Civil Service personnel qualifications specify minimum education and experience for each job category, e.g. Environmental Scientist;
- LDEQ position descriptions specify minimum education and experience for a specific job;
- Mentors are used to train employees assigned new functions or jobs and verify their competency to perform the required quality related tasks without additional mentoring;
- A training program, as part of the Individual Development Plan (IDP), is used to help ensure competency of staff in existing or new jobs (*Policy 4008-01Training*);
- Annual staff performance evaluations are used to identify possible training needs.

3.1 Personnel Qualifications

Personnel qualification requirements are specified by the Department of Civil Service and are outlined in the specifications for that job. The Job Information Packets outline career ladders specifying educational requirements and experience required for entry-level and advanced positions within a series of related jobs (e.g., Environmental Scientists).

The LDEQ Human Resources Section evaluates existing individual employee education and experience and notifies the division when the employee meets the qualifying requirements to advance to the next level in the career ladder. LDEQ personnel procedures are located on the Intranet (*Policy 4010-02 LDEQ Leadership Development Program*).

3.2 Job Descriptions

Management prepares job descriptions for each LDEQ position. The job descriptions specify essential job functions, physical and environmental demands and hazards, and job-related knowledge, skills and experience.

3.3 Mentors

Mentors are experienced employees who are assigned to staff members with new assignments to ensure appropriate training is received. Mentors provide input to the supervisor as to the competency level of the employee as the training progresses.

3.4 Employee Training

Training needs are determined annually on an individual basis by supervisors in consultation with employees. Supervisors develop an Individual Development Plan (IDP) that outlines a required training plan for each employee. The IDP is used in the annual review process (Performance Planning and Review) to assess training status. Training determinations are based on performance in meeting statutory requirements, management directives, SOPs, and QAPPs, as outlined in the employee's annual planning document.

Supervisors annually document training needs, if identified, in the individual's Performance Planning and Reviews (PPRs). Performance plans may address remedial training needed to correct deficiencies in performance, educational preparation, or professional experience and to address prerequisites for advancement and new or unique job requirements. Training topics may include technical, quality assurance, operational, non-technical, and managerial topics. Additional training needs may be specified in QAPPs or SOPs.

3.5 Training Programs

OMF staff designs training programs based on formal assessments of agency, office, division, program, and job requirements (*Policy 4008-01 Training and Policy 4010-02 LDEQ Leadership Development Program*). Qualified instructors are identified on a course-by-course basis through resumes, interviews, proposals, and demonstrated competence. The Human Resources staff uses written evaluations to assess course content and instructor effectiveness. Supervisors determine if the employee gained the knowledge needed and document results in the annual employee review.

Management determines whether training programs and courses offered outside of the LDEQ by educational institutions, professional associations, and other providers are available and useful. These programs and courses may include such activities as instructional courses, seminars, professional meetings, and workshops or on-site training by external organizations approved by management.

3.6 Training Records

The Human Resources staff maintains employee training records for all training coordinated through the LDEQ Safety and Training Unit. Supervisors maintain other training records of the staff they supervise.

3.7 Quality Assurance Training

Quality assurance staff (QA Manager and QA Officers) shall fulfill the educational, work experience, and training required for their positions and complete the EPA QA training courses listed below:

- Orientation to Quality Assurance Management
- Data Quality Objectives Workshop
- QMP/QAPP Seminar (two day class)

The QA Manager may recommend exceptions to these requirements upon presentation of objective evidence of similar and equivalent training or experience in the QA field.

In addition to the QA staff training described above, LDEQ employees receive a job awareness course, which is provided by each division that describes each employee's role related to the agency's mission. The awareness training also includes discussion of the agency's quality assurance system. The supervisors also review relevant policies and SOPs with employees. This ensures that all employees are aware of the relevance and importance of their activities and how they contribute to the quality goals and objectives of the agency.

4.0 Procurement of Goods and Services

Two groups within Office of Management and Finance (OMF) manage the procurement of goods and services. Procurement Section handles purchase of goods and facility related support services, high-end technology and complex services. Technical services are controlled and documented through Contracts and Grants Section to assure compliance with requirements, i.e., that contracted and subcontracted activities produce results of acceptable quality (quality planning which includes contractor requirements is described in Section 7.0). Requirements and specifications will be included or referenced in procurement documents. The acceptability of purchased items and services will be verified and documented.

4.1 Authority and Procedures

Statutory requirements concerning procurement are managed by the Louisiana Office of State Purchasing and posted on their web site at http://www.state.la.us/osp/osp.htm. It contains or provides links to current versions of the following:

- Louisiana Revised Statues Titles 39, 38, and 43
- Purchasing Rules and Regulations and the LA Procurement Code
- Louisiana Revised Statutes Title 39:1593 C: Methods of Procurement
- Louisiana Revised Statutes Title 39:1481-1526 and Chapter 34 Part V: Procurement of Professional, Personal, Consulting and Social Services (Division of Administration Rules and Regulations)

Procurement procedures are in the *LDEQ Policy & Procedures Manual 2003-88 Purchasing*. These documents describe assignments of authority and procedures for planning and approving procurements, determining specifications and

requirements to be included in procurement documents, selecting vendors, awarding procurements, and accepting purchased goods and services.

4.2 Procurement Documents

Procurement documents include purchase orders, internal requisitions, invitations for bid, requests for proposals, procurement contracts, contract request forms, non-competitive selection forms, contract certification forms, contract justification forms, and scope of services. These documents specify tasks and products, goals & objectives, technical requirements, quality requirements, administrative requirements, deliverables, methods used to measure and determine contract performance, a monitoring plan and other requirements. All procurements are approved prior to issuance. Approval requirements vary depending on the nature and cost of the goods or services being procured. As a matter of policy, maximum competition among potential bidders and contractors is encouraged.

4.3 Technical Requirements

Technical requirements are determined by the program and are provided in procurement documents. Purchases of information technology products and services are also reviewed and approved by the Information Services Division Administrator.

4.4 Quality Assurance Requirements

QA requirements are determined by the program with assistance of Purchasing and/or Contracts staff, and documented in procurement documents. These documents include or reference appropriate design bases, certifications, and other requirements necessary to assure adequate quality, and, to the extent necessary, require suppliers and subcontractors to have quality assurance programs consistent with the LDEQ program. Any certifications and or license required by statute, state law, or LDEQ regulations will be a requirement set forth in the bid or negotiation process, i.e. Request For Proposals (RFP), Invitation to Bid (ITB), Solicitations. Evidence of such requirements must be provided prior to award. In competitive bid documents (RFP, ITB, Solicitations) requirements for sub-contractors (certifications, licenses, accreditations, etc.) will be identified and verification of such made prior to award.

For non-competitive negotiations, it shall be the responsibility of the negotiating unit within LDEQ to determine and verify the requirements for sub-contractors prior to issuance of the contract. In any event, state and federal laws, statutes and regulations with stated requirements for sub-contractors will be adhered to. An example of this would be the laboratory accreditation program, which requires that all state, local, federal and commercial laboratories, including sub-contractor laboratories; submitting data to LDEQ must be certified in accordance with LAC 33:I Chapters 45 - 57.

Procurement documents may include pre- and post- award source inspections, supplier audits, evaluations of objective evidence of quality furnished by the supplier, acceptance testing, and other requirements determined to be appropriate.

For Personal, Professional, Consulting, and Social Services contracts and contracts for high-end technology or complex services the monitoring plan in the contract ensures that the services and deliverables of the contract are fulfilled and that acceptable levels of service are provided. It is the project manager's responsibility to monitor the contractor's performance, including on-site visits, to assure compliance with the technical requirements of the contract.

4.5 Changes to Procurement Documents

Changes to procurement documents generally receive the same reviews and approvals as original procurement documents. Changes may be authorized only through written amendment or change order. Also, approval requirements for changes are determined on the basis of allowable cost changes within the realm of state statutes.

4.6 Solicitation Responses and Supplier Selections

Responses to solicitations are reviewed by Procurement personnel and personnel from the requesting unit who have technical expertise. Review is to ensure that the product being bid meets required specifications.

For all contracts resulting from a request for proposal process, a selection committee performs the technical reviews. The selection committee is composed of LDEQ technical personnel from the office/division from which the solicitation is requested and a member of the Procurement staff. The selection committee will evaluate and rank all proposals according to the criteria listed in the solicitation. At a minimum, criteria will include technical approach, relevant experience of the firm, and qualifications of key personnel assigned to the project.

The Financial Services Division within LDEQ performs the cost reviews for these proposals (*LDEQ Policy Manual 5001-89 Contracts)*.

4.7 Acceptance of Goods and Services

Goods are received by receiving personnel in accordance with written LDEQ procedures (*Policy 2011-93 Central Receiving*) and in line with acceptable receiving practices as defined by state law. Goods are inspected upon receipt for noticeable damages/defects and are evaluated against criteria contained in purchasing documents. Items not meeting written criteria or which show a noticeable defect are rejected for delivery and vendor/supplier immediately contacted. End users determine whether acceptance criteria have been met and whether goods or services are adequate or appropriate for use.

Goods and services which contain latent defects are also not accepted for use. Corrective actions are initiated in accordance with state statutes, contract provisions and LDEQ procurement procedures. Corrective actions may range from replacement of defective deliverables to re-award of purchases.

For contracts resulting from a request for proposal process, progress reports are submitted to the project manager with invoices for payment. Progress reports provide the contract and project managers with information on the status of work performed, showing that work is on schedule or that progress is being made. Invoices are reviewed and approved by the project manager and submitted to Fiscal Services for payment. Services or deliverables that do not meet contract requirements are not accepted. Corrective actions may range from requiring resubmission of a deliverable to termination of the contract.

Vendors are on a list of registered suppliers. There is a state procedure to debar vendors for poor quality service or supplies. The Contractor Performance Evaluation form is used to submit quality related information on contractors.

5.0 Documents and Records

For the purpose of these requirements, a document is any volume that contains information that describes, defines, specifies, reports, certifies, requires, or provides data or results pertaining to environmental programs. It includes documents and data generated internally and externally including reference material and customer supplied information.

Most records and documents are considered public records and as such shall be available to the public during working hours. Information on the procedure for records request is located at http://www.deq.state.la.us/pubRecords/default.htm. Exceptions are personnel evaluations, security-sensitive information and confidential information from an applicant. Documents that specify requirements and instructions affecting the quality of environmental programs shall be adequate for the intended purpose and shall be controlled. Quality assurance records will be produced, controlled, and maintained so as to reflect the achievement of the required quality for completed work and to fulfill statutory, regulatory, and contractual requirements.

Customer supplied information may include permit applications, discharge data, release information, various required plans such as RCRA corrective action plans, and other proprietary information. This information is handled in the same manner as described for LDEQ generated data or records. Some of the information may be considered confidential property and is managed by Policy Number 0013-96 *Maintenance of Confidential Information.*

5.1 Documents

Documents that specify quality-related requirements and instructions include:

- LDEQ QMP;
- QAPPs;
- Sampling and analysis plans;
- SOPs;
- Forms;
- LDEQ Policy and Procedure Manual (PPM); and
- Environmental program guidance documents.

The QA Team coordinates development and implementation of agency-wide quality assurance procedures. At a minimum, the QA Team has developed procedures for review, approval, distribution, revision and control of quality assurance documents (see appendices D, E, and F). Sampling and analysis plans are prepared, reviewed and approved using the same procedures as QAPPs. The QA Manager ensures the identity and revision level of those documents approved for use, both internal and external in origin.

The system ensures that documents are reviewed for compliance with the following items:

a. development and approval authority;
b. frequency for review and re-approval;
c. availability by those that need to know;
d. removal of obsolete documents from use; and
e. obsolete documents retained for legal or other appropriate purposes are suitably identified.

Obsolete documents are maintained and archived in accordance with state retention requirements as specified in Records Series and Records Retention Guidelines. Certain QAPPs and SOPs specify controls for documents relevant to specific programs. Obsolete QA documents are kept for a minimum of three years for historical information.

5.2 Records

QA records are items that furnish objective evidence of the quality of items or activities that have been verified and authenticated as technically complete and correct. QA records may include photographs, drawings, forms, reports, and electronically recorded data either paper, electronically, or other media. These records are identified in QAPPs and SOPs and handling procedures are specified.

Assignments of authority and procedures concerning the identification, verification, authentication, handling, retention, and disposition of (documents and) records needed to safeguard the legal and financial rights of the State of Louisiana and any

person directly affected by activities of the LDEQ are contained in Title 44 of the Louisiana Statutes and identified in each of LDEQ's SOPs. Records produced by LDEQ and maintained as official records of the State of Louisiana are documented in the agency Records Retention Schedule.

6.0 Computer Hardware and Software

The acquisition and installation of computer hardware and software will be controlled to ensure conformance with standards and compatibility with existing and planned network, hardware, and software. The Office of Management and Finance (OMF) sets standards, and the Information Services Division approves acquisitions and performs installations. The Office of the Governor's Procurement Support Team, as authorized by RS 39:196-200, must approve all requisitions of $50,000 or greater for computer hardware and all requisitions of $100,000 or greater for computer software.

6.1 Hardware

Servers and Network components are purchased, installed, and maintained by the Technical Support Section of the Information Services Division. This equipment is routinely upgraded as cost efficient alternatives become available to meet the existing and projected infrastructure needs of the agency. Uninterrupted power supplies (UPS) are utilized on all servers, network hubs, routers, and switches. Annual maintenance contracts with manufacturer approved service centers are utilized where appropriate.

Client workstations are installed and maintained by the Technical Support Section. The OMF establishes minimum configurations for CPU, memory, and disk storage. All client workstations are routinely upgraded or replaced to conform to this standard.

High speed networked printers are made available to every workgroup, with limited use of desktop printers for special circumstances such as confidentiality.

6.2 Software

Standards are set by OMF for system software and tools on client workstations. The Undersecretary, on an individual basis, approves exceptions to these standards. The Technical Support Section installs and maintains all client workstation software.

The Application Support Section of the Information Services Division, with consultant assistance, has developed an Integrated Data Management System (IDMS) which is the repository for all ambient and site related environmental data. Existing stand-alone systems have been replaced by the IDMS. Cleanup and reconciliation of the migrated data is in progress. All future application development will be tightly integrated and conform to the standards set by this system.

6.3 Geographic Information System

The GIS Section of the Information Services Division has developed quality standards for positional data. All positional data, whether obtained from external sources or agency personnel using global positioning systems, is accompanied by codes giving the method by which it was gathered and from which its accuracy may be inferred. It is the responsibility of the program organizations to insure that the data meets the standard.

6.4 Data and Information

The responsibility for data quality lies with the program organization, regardless of whether the information is produced from or collected by computers. During software development, the requirements for data quality are captured by the requirements-gathering process like any other requirements, and the inspection and testing procedures insure that the software delivered meets those requirements.

LDEQ backs up all data on tape following a regular protocol:

Weekly	Backup
Monday - Thursday	Incremental backups daily
Friday	Full systems backup
Monday	All data tapes from the previous week are shipped to an offsite, environmentally controlled storage facility

All weekly data tapes are retained in storage for 6 weeks and then recycled. Monthly data tapes (backups at first of the month) are kept in storage for 2 years and then recycled. Two complete systems backups are made once at the first of the calendar year and again at the first of the fiscal year (July 1). These two full backups are kept in storage. When backups will be rendered obsolete by new equipment, plans will be developed to migrate important data to the new platform.

7.0 Planning

Environmental programs shall be planned in accordance with state and federal laws and rules, agency policies and procedures, and contractual requirements.

7.1 Requirements

Organizational and programmatic requirements concerning environmental programs are defined in statutes enacted by the Louisiana Legislature and United States Congress, strategic plans developed by LDEQ, rules promulgated by LDEQ and federal agencies, and requirements documents adopted by LDEQ and federal agencies. These documents determine goals, establish stakeholder and customer relationships, and define needs and expectations for environmental programs implemented by LDEQ.

7.2 Specifications

Environmental programs and projects are planned through the development of organizational business plans and budgets, Performance Partnership Agreements, grant work plans, QAPPs, sampling and analysis plans, SOPs, and contracts executed by LDEQ and external organizations. These documents translate requirements and expectations into measurable specifications, commitments, and performance criteria.

7.3 Cost and Schedule Constraints

Cost and schedule constraints are taken into consideration during the development of the LDEQ Strategic Plan, the annual budget request to the Louisiana Legislature, and negotiations for federal assistance agreements. Funds for environmental programs are appropriated on an annual basis by the Louisiana Legislature and allocated annually by LDEQ management during preparation of the agency's operating budget.

7.4 Project Planning

Projects involving the generation, acquisition, and use of environmental data are planned through a systematic process. The development of project plans flows out of this systematic planning process.

Each environmental data collection project conducted by or for the Louisiana Department of Environmental Quality (LDEQ) must follow systematic planning and have a project plan that describes the purpose and objectives of the study, the procedures that will be used to meet the objectives, and who will perform the procedures. The systematic planning process involves two main phases. The first phase involves upper management and the second phase involves the staff that will ultimately be responsible for implementing the plan.

The QA program will take the lead role in the systematic planning process by coordinating with upper level management during the first phase and facilitating the planning meetings during the second phase:

Phase 1: The QA Manager will work with Executive Management, Administrators and/or senior staff to determine the need for a detailed project plan, including QA processes. The QA Manager is kept apprised of ongoing and new environmental data projects by participating in management meetings or by way of other communications.

The QA Manager works with the high-level staff to understand the basic needs of the project. A series of questions have been developed to facilitate this process (Appendix E). During Phase 1, the staff needed to fully develop and implement the plan is identified and contacted to begin Phase 2.

Phase 2: The QA Manager and/or QA Officer will typically be responsible for arranging the initial planning meeting, in coordination with lead staff members identified in Phase 1. The main role the QA Manager or Officer will play during this phase is facilitator. The QA Manager/Officer is not responsible for developing and writing the plan; they are responsible for ensuring the Phase 2 planning team addresses all appropriate questions and issues. To assist with this process, a questionnaire has also been developed for Phase 2 (Appendix E).

The resulting document of this systematic planning process is a project plan with QA processes incorporated and formatted to address all sections outlined in EPA's QA/R-5 guidance document - *EPA Requirements for Quality Assurance Project Plans ("R5")* (EPA 2001). If a particular section of R5 is deemed not-applicable, this will be stated in the final plan and the reasons why the information is not pertinent to the project.

In addition to project specific plans, generic project plans for programs may be developed. Generic plans will be developed for programs routinely implementing the same types of projects (e.g. watershed intensive dissolved oxygen surveys and RCRA activities). If generic plans are developed for a program area, project or site-specific details will be planned through development of sampling and analysis plans.

8.0 Implementation of Work Processes

Environmental programs shall be performed to ensure that customer needs and requirements are met in a timely manner. Environmental programs conducted by or on behalf of the LDEQ shall be implemented in accordance with approved plans. Exceptions, deviations, and changes to these documents shall be approved and documented prior to implementation.

8.1 Quality System Processes

The LDEQ ensures environmental work is performed according to plan through the following:

- implementation of a formal quality assurance program
  - *Quality Management Plan*

- strategic and operational plans, following requirements set forth by state statutes, with direction and guidance from the Division of Administration
  - *SOP for the Strategic Plan Development*
  - *SOP for the Operational Plan*

- program and project planning, following appropriate state and federal guidance and requirements related to the various media programs and environmental projects
  - *Appendix E, Preparation, Review, Approval and Distribution of QAPPs*

- *Requirements for Quality Assurance Project Plans for Environmental Data Operations, EPA QA/R-5*
- *Appendix F, Preparation, Review, Approval and Distribution of SOPs*
- *EPA Guidance for Preparing Standard Operating Procedures (SOPs), EPA QA/G-6*

- staff development and training, following requirements set forth by Civil Service and internal LDEQ policies
  - *Policy Number 4008-01 Training*
  - *Policy Number 4010-02 LDEQ Leadership Development Training*

- ongoing oversight of performance, following policies and procedures developed by LDEQ staff
  - *SOP for Corrective Action System*
  - *SOP for Internal Audits and Assessments*
  - *SOP for QA Reporting and Assessment and Improvement Planning*

8.2 Implementation Schedule

The QMP and QAPPs are revised annually**,** or more frequently to document significant changes, as stated in Appendix D and E. QAPPs are prepared and approved according to the timetables set forth in the specific grant work plans. The QA Manager shall monitor the status of the QMP and QAPPs and shall report to the Secretary or his designee the status of QMP revisions and any environmental data operations that do not have approved QAPPs.

8.3 Control of Monitoring and Measurement Devices

Monitoring and measurement devices are used to collect environmental data that is either a product or basis for a decision. These devices, including calibration transfer equipment, require calibration. Equipment, including its operating software that requires calibration is specified in QAPPs or SOPs along with the required calibration methods and frequency. Acceptance criteria are also stated along with the assessment procedure for prior data when an out of calibration (above/below acceptance criteria) is noted. These documents also specify how the following requirements are met:

- Define calibration interval against measurement standards traceable to international or national measurement standards (If no such standard exist, the basis for calibration must be justified and recorded);
- Identify and record the record of calibration results and by whom;
- Define method used to identify status of calibration;
- Provide a safeguard to prevent adjustments that would invalidate the measurement result; and
- Protect from damage and deterioration during handling, maintenance and storage.

9.0 Assessment and Response

An assessment and response procedure designed to measure the effectiveness of the agency quality system and technical processes is managed and implemented by the QA Team. Assessment results are reported to appropriate management, supervisors, and other personnel for review and action as necessary. Follow-up actions are taken where appropriate. The QA Manager keeps records of the assessments.

9.1 Types of Assessments

The LDEQ utilizes the following types of assessments:

- quality system assessments
- technical system assessments
- data quality assessments
- performance planning and reviews
- performance audits
- readiness reviews

9.1.1 Quality System Assessments

To assess implementation and effectiveness of the quality system as documented in the QMP, Management System Assessments (MSAs) will be conducted. The MSA may be a self-assessment (internal audits) or conducted by an EPA Region 6 QA Team.

The QA Manager will select members of the audit team. The QA Team will conduct MSAs within the environmental offices on a rotational basis with each division being assessed completely at least once every four years. The MSAs and technical assessments provide effective assessments of the management system. The audit schedule is reviewed by the QA Team to determine if the schedule needs to be altered relative to the audit results.

Findings of an MSA are reported to the Administrator of the division being assessed so that corrective actions will be addressed in a timely manner.

9.1.2 Technical Assessments

Program activities will be evaluated through technical assessments and audits based on QAPPs, SOPs, and Sampling and Analysis Plans. The frequencies of technical assessments are project specific and defined in the individual plans and SOPs. A technical systems audit will be conducted on a program in each of the nine technical divisions that includes Laboratory Services and each regional office at least annually as part of the internal audit program.

In addition to these technical assessments, the Audit Section in Office of the Secretary (OSEC) audits non-technical programs or divisions for fiscal matters and effectiveness of performance.

9.1.3 Data Quality Assessments

All data, regardless of the media, will be evaluated for quality and integrity. Data review and data validation procedures are documented in the appropriate QAPP. The procedures will document the decision process and factors used in arriving at the choice of the particular qualification method. Any limitations on data use will be identified quantitatively to the extent practicable and fully documented. Data that did not use, or fully comply with, a QAPP or equivalent planning document for data collection and analysis must be qualified (i.e., validated for use).

Data verification is used to determine if the valid data met the acceptable level of certainty required for a decision. Confidence levels may be stated in the QAPP as performance measures for the project. This process may include application of statistical methods during the data quality assessment process.

Environmental data generated outside of a quality assurance program or an approved QAPP and used in an environmental program will be qualified according to its intended use. The data and the methods used to qualify such data will be identified in the appropriate QAPP. The suitability of the monitoring and measuring devices is identified and this may include the accuracy and precision of the device.

Various guidance documents are available to assist in determining appropriate data assessments and determining the usability of data including EPA quality system documents QA/G-4, QA/G-4HW, QA/G-7, QA/G-8, QA/G-9, EPA Contract Laboratory Program (CLP) guidelines and EPA Risk Assessment Guidelines. These documents are available for reference; however, their use is not a requirement. The required planning tool is EPA's QA/R-5 document, which outlines the components that must be addressed during the planning process and documented in a QAPP.

9.1.4 Performance Planning and Reviews

Supervisors conduct annual performance planning and reviews (PPRs) for each employee, following the procedures established for PPRs in Chapter 10 of the Louisiana Civil Service Rules. Quality assurance expectations are explained to each employee during the planning meetings and evaluated annually.

The Human Resources Division maintains job descriptions and original signed PPRs. Supervisors maintain the performance planning documents.

9.1.5 Performance Audit

The QA Unit in the Office of Environmental Compliance conducts performance audits on ambient monitoring and sampling equipment operated by OEC Surveillance Division field staff to ensure that a percentage of all monitors (as specified in the media specific QAPP) are audited each quarter based on requirements.

Laboratory Services Division also conducts performance audits of its equipment and does performance sample analyses.

9.1.6 Readiness Review

Supervisors, Project Leaders or their designee may conduct a readiness review prior to an inspection or sampling event to ensure that all documents, check lists, equipment and supplies are appropriate for the activity to be performed. Readiness reviews may be specified in a QAPP for the project or program.

9.2 Assessment Planning

Assessment plans and schedules shall take into account such factors as public health and safety, budgets, results of prior assessments, grant/program coverage and continuity, complexity of work activities, management criteria, and existing commitments (e.g., QAPPs). Scheduled assessments will be supplemented by unscheduled or unannounced assessments requested by supervisors or as identified by QA Representatives and QA Officers.

The QA Officer in each office shall prepare written assessment plans for their programs by June 1st of each year for the next fiscal year activities. QA Officers will meet with supervisors and QA Representatives in developing these plans. Annual assessment plans will list the programmatic and project-related assessments planned, as well as the scope and anticipated date (month or quarter) of each assessment. QA Officers will revise annual assessment plans as necessary to reflect changes in work activities or other factors. Annual assessment plans and revisions to annual assessment plans shall be approved by Executive Management prior to implementation and distributed to the QA Representatives and supervisors.

9.3 Qualification of Environmental Data

QAPPs prepared by the LDEQ will identify the quality of data needed to adequately describe each project. This data may be used to support a planning or enforcement action and should be sufficient to handle that support. Although present conditions are of paramount importance, planning for data collection will consider the potential for environmental change with respect to time.

Data obtained from sources that did not use, or fully comply with, a QAPP or equivalent planning document for data collection must also be qualified (i.e.,

validated for use). Data and data validation procedures will be documented in the appropriate QAPP. The procedures will document the decision process and factors used in arriving at the choice of the particular qualification method. This process will include the correct application of statistical methods during the assessment process. The decision to qualify the data for their intended use will be based on reconciliation with the performance measures for the project defined by the data quality requirements. Any limitations on data use will be identified quantitatively to the extent practicable and fully documented.

9.4 Assessment Status Report

QA officers shall provide a summary report of quality-related assessments and assessment results to the QA Manager annually. The report will include assessments and corrective actions implemented by the offices and other information required by the QA Manager for the agency annual QA report to executive staff and EPA.

The QA Manager shall issue a summary report of quality-related assessments and assessment results affecting the agency quality system annually to the Secretary, the Assistant Secretaries, and other parties the Secretary deems appropriate. A copy shall also be forwarded to the EPA Region 6 QA Manager.

9.5 Assessments

Assessments will be led by an assessment team leader and conducted by teams consisting of one or more individuals. Selection and composition of assessment teams shall be appropriate for the scope and objective(s) of the assessment. The role of each team member shall be specified, and each team member shall be qualified to perform his or her role. The scope, objectives, and results of assessments shall be documented. Responses to assessments shall be documented, proposed corrective actions shall be evaluated, and the effective implementation of corrective actions shall be verified.

Unless other arrangements have been made, an assessment team leader shall forward a written assessment report to the supervisors and the appropriate quality assurance officer within 30 calendar days of completing the on-site phase of an assessment. If an assessment report contains adverse findings, supervisors of the affected projects shall forward written responses to the assessment team leader within 30 calendar days of receiving the assessment report.

9.6 Authority and Access

Assessment teams shall have access to all work areas, documents, records, personnel, and supervisors that, in the judgment of the team leader, are reasonably necessary to:

- conduct an assessment;
- propose solutions to quality problems; and

- verify the timely implementation and effectiveness of systems, activities, items, and corrective actions.

9.7 Suspension of Assessments

An assessment may be suspended if, in the judgment of the assessment team leader, the objectives of an assessment cannot be achieved or a continuation of an assessment could jeopardize the health or safety of any member of the assessment team. The assessment team leader shall notify the supervisors and QA Officer as soon as practicable after suspending an assessment and shall describe the reasons for the suspension.

9.8 EPA Assessments

EPA-sponsored programs are subject to review at any time. Formal assessment of performance under EPA assistance agreements occurs as part of a comprehensive review and evaluation of LDEQ programs.

10.0 Quality Improvement

LDEQ will strive to maintain and continually improve the overall quality system established for its environmental programs.

Agency functions described in the preceding sections detail how LDEQ will plan, implement, monitor and assess the environmental program quality systems within each office. Personnel working within the program areas are trained to identify, plan, implement, and evaluate quality improvement activities for the projects for which they are responsible.

10.1 Process to Determine Effectiveness of Quality System

Executive Management must ensure that the agency QA program is timely and relevant. The QA Manager shall ensure that Executive Management identified quality objectives and activities are incorporated at appropriate levels within the agency. The QA Officers for each office, supervisors and QA Representatives within each program shall be responsible for their respective quality improvement activities.

QAPPs for each office shall include procedures to ensure that early and effective corrective action will be taken when data quality falls below established limits. Each plan will describe the mechanism(s) to be used when corrective actions are taken to produce the desired results, and what steps will be taken should corrective action not take place, or not be effective. Each plan will also include provisions to keep the appropriate supervisor and QA Representative informed of the performance of the data collection systems.

Observations and/or findings in one area can be sources of preventive actions that are taken to prevent the occurrence of nonconformity. Reviews by the QA Team

and management reviews are other sources of preventive actions. Effectiveness of the quality system, including results of improvement plans, shall be monitored as part of the management reviews.

10.2 Corrective Action Procedures

LDEQ has corrective action procedures to ensure consistency in addressing quality system deficiencies. These actions shall determine the cause of the deficiency, evaluate the need for action to prevent occurrence/reoccurrence, implement the action and record the results of the action taken.

Corrective action(s) have been developed for routine internal program controls to prevent adverse program impact. Routine program controls include the following:

- Each measurement system will have predetermined limits to identify when corrective action is required, before the data becomes unacceptable.
- A procedure will be established for each measurement system to identify the corrective action that will be taken when the control limits are exceeded.
- For each measurement system, the level within the organization responsible for taking corrective action will be identified, and also the level within the organization responsible for approving corrective action will be identified.
- The QA Officer will be notified of corrective actions that result in a change in procedures or a loss of data resulting from a corrective action.

The following activities could initiate corrective actions:

- Data quality audits
- Failure to adhere to the approved QMP, QAPP or SOP
- Technical system audits
- Performance audits
- Failure of a QAPP, SOP, or Sampling and Analysis Plan to provide the appropriate outcomes and results

The QA Officer will ensure the implementation of corrective action plans and advise the appropriate supervisor if these plans are not implemented in a timely manner. If corrective action plans are not completed in a timely manner, the QA Officer will notify the appropriate Administrator and Assistant Secretary, if necessary, to ensure the corrective actions are addressed.

Semi-annually, the QA Manager will review quality-related deficiencies, non-conformances, and programmatic improvements and advise the Secretary of any significant trends affecting the agency quality assurance program. The QA Manager will also provide to the Secretary and the EPA Region 6 QA Manager an annual report describing the status of the quality assurance program.

The Secretary and Executive Management are authorized to stop work as necessary to safeguard programmatic objectives, worker safety, public health, and environmental protection.

10.3 Outreach and Assistance

The QA Manager will maintain a close liaison with the QA staff in each Office and will meet at least annually with management in the respective LDEQ Offices concerning quality assurance matters.

The Information Services Division maintains an Intranet website that provides Department-wide access to the QMP, SOPs, QAPPs, sampling plans and other QA related documents.

11.0 References

1. Data Quality Objectives Process for Hazardous Waste Site Investigations. EPA QA/G-4HW. EPA/600/R-00/007. January 2000.
2. EPA Guidance for Quality Assurance Project Plans. EPA QA/G-5. EPA/600/R-98/018. February 1998.
3. EPA Guidance for Quality Management Plans. EPA QA/G-2. EPA/600/R-98/018. February 1998.
4. EPA Guidance for Preparing Standard Operating Procedures. EPA QA/G-6. EPA/240/B-01/004. March 2001.
5. EPA Requirements for Quality Assurance Project Plans. EPA QA/R-5. EPA/240/B-01/003. March 2001.
6. EPA Requirements for Quality Management Plans. EPA QA/R-2. EPA/240/B-01/002. March 2001.
7. Guidance for Data Quality Assessment: Practical Methods for Data Analysis. EPA QA/G-9. EPA/600/R-96/084. January 1998.
8. Guidance for the Data Quality Objectives Process. EPA QA/G-4. EPA/600/R-96/055. August 2000.
9. Guidance on Data Usability in Risk Assessment, Part A. PB92-963356. April 1992.
10. Guidance on Technical Audits and Related Assessments for Environmental Data Operations. EPA QA/G-7. EPA/600/R-99/080. January 2000.
11. LDEQ Policy and Procedures Manual. Policy 0005-90 Public Records Requests Procedures. October 12, 1998.
12. LDEQ Policy and Procedures Manual. Policy 0006-90 Public Contact/Telephone Courtesy. November 01, 1994.
13. LDEQ Policy and Procedures Manual. Policy 0013-96 Maintenance of Confidential Information. September 10, 1996.
14. LDEQ Policy and Procedures Manual. Policy 2003-88 Purchasing. November 29, 1999.
15. LDEQ Policy and Procedures Manual. Policy 2008-90 Property Management. March 06, 2001.
16. LDEQ Policy and Procedures Manual. Policy 2011-93 Central Receiving. February 8, 1993.

17. LDEQ Policy and Procedures Manual. Policy 4008-01 Training. March 13, 2001.
18. LDEQ Policy and Procedures Manual. Policy 4010-02 LDEQ Leadership Development Program. April 25, 2002.
19. LDEQ Policy and Procedures Manual. Policy 5001-89 Contracts. March 14, 1990.

Appendix

Appendix items A-G on following pages.

Appendix A Environmental Programs Covered by the QMP

LDEQ has implemented a formal QA program for environmental data operations related to all federally funded programs. Descriptions of the various programs follow and Appendix G lists the QAPPs that have been implemented in support of these programs.

Clean Air Act (CAA)

Major air quality activities covered under the agency quality assurance program are found in sections 103(b), 105 and Title V permitting and compliance monitoring.

Section 103(b):

- Particulate Matter 2.5 ($PM_{2.5}$) Ambient Air Monitoring Network activities support the statewide monitoring of particulate matter less than 2.5 microns.

Section 105:

- AFS Compliance Reporting program involves the automated reporting to EPA of compliance data for regulated point sources. (Note: The emissions data component of AFS is no longer in operation. The National Emissions Trends(NET) Database now serves the EPA emissions data storage function. LDEQ is evaluating the new NET reporting format and resource requirements to convert from the agency's database format to NET.)
- Ambient Air Monitoring Network Program covers the monitoring of criteria pollutants (particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, and lead) and other information to gather data to demonstrate compliance with National Ambient Air Quality Standards (NAAQS). The CAA and its amendments provide the framework for all pertinent organizations to protect air quality. The framework provides for the monitoring of these criteria pollutants by State and local organizations through the Air Quality Monitoring Program and different networks of stations, outlined below:
  - The State and Local Air Monitoring Stations (SLAMS) consist of a network monitoring stations whose size and distribution is largely determined by the needs of state and local air pollution control agencies to meet their respective State Implementation Plan (SIP) requirements.
  - The National Air Monitoring Stations (NAMS) are a subset of the SLAMS network with emphasis being given to urban and multi-source areas. In effect, they are key sites under SLAMS, with emphasis on areas of maximum concentrations and high population density.
  - Special Purpose Monitoring Stations (SPMS) provide for special studies needed by the state and local agencies to support their State Implementation Plans (SIPs) and other air program activities. The SPMS are not permanently established and, thus, can be adjusted easily to accommodate changing needs and priorities. The SPMS are used to supplement the fixed monitoring network as circumstances require and resources permit. If the data from SPMS are used for SIP purposes, they must meet all QA and methodology requirements for SLAMS monitoring.

- The Photochemical Assessment Monitoring Stations (PAMS) network is required to measure ozone precursors in each ozone non-attainment area that is designated serious, severe, or extreme. The required networks will have from two to five sites, depending on the population of the area.
- Asbestos Demolition and Renovation program regulates asbestos, specifically that portion related to the National Emissions Standards for Hazardous Air Pollutants (NESHAP), Section 112 of the Clean Air Act, to reduce ambient exposures and the accompanying health risk. A QAPP is prepared to satisfy the requirements of the 105 grant asbestos NESHAP compliance work that requires the State to demonstrate that a quality system is in place related to asbestos demolition and renovation compliance activities.
- The Title V (40CFR, Part 70) program regulates facilities classified as Title V (major emission) sources and under the delegation agreement with EPA the permitting and compliance monitoring activities conducted by LDEQ ensure that those facilities meet these requirements.

Clean Water Act (CWA)

Section 104(b)(3): These grants are frequently made available to state water pollution control agencies to conduct and promote research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent prevention, reduction, and elimination of pollution. Projects and programs supported by 104(b)(3) funding support the development of strategies to improve water quality and oversight of implementing the strategies.

Projects and studies implemented by LDEQ utilizing these grants and covered under the QMP include: ecological, biological and water quality monitoring; toxicological assessments; fish tissue analyses; geographic determinations of pollution; and total maximum daily load (TMDL) research.

Section 106: These grants are made to state water pollution control agencies to support establishment and operation of devices, methods, systems, and procedures necessary to monitor, and to compile and analyze data on, the quality of navigable waters, and when practicable, ground waters. Information is used to produce the biennial 305(b) Water Quality Inventory Report and the 303(b) list of impaired waters. The information may also be used to characterize existing conditions, evaluate spatial and temporal trends, determine water quality standards compliance, identify emerging problems, and evaluate the effectiveness of water pollution control programs, particularly permitting and compliance monitoring activities.

Surface water programs at LDEQ supported by this grant and covered by the QMP include: ambient surface water monitoring (which includes routine sampling at network sites, intensive surveys for special projects including TMDL development, and other special studies); data management; and providing education and technical assistance to the community. Ground water programs at LDEQ supported by this grant and covered by the QMP include baseline monitoring of state's aquifer systems for ambient water quality and making this information available to the public.

Section 319(h): These grants are designed for states to implement preventive measures and watershed restoration action strategies relating to nonpoint sources of pollution including runoff and leachate from agricultural, forested and urbanized lands. The nonpoint source program is also active in the TMDL development process and provides oversight of grants for data collection and analysis, outreach activities, and development of watershed action plans. Any environmental data project implemented with 319 funds is considered covered by this QMP.

Section 604(b): Under the State Water Pollution Control Revolving Funds title of the Clean Water Act, Section 604(b) outlines the use of funds by states for to carry out planning efforts under sections 205(j) and 303(e) of the Act. These funds are typically used for technical support, training and other water quality management planning activities for the TMDL and water permits programs.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

- **Superfund Amendments Reauthorization Act (SARA)**

Superfund: The Superfund program is responsible for ensuring remediation of sites posing an unacceptable risk to public health and safety or the environment. For sites named by EPA to the National Priorities List, LDEQ either assists EPA or takes the lead in project management of remedial investigations, feasibility studies, remedial design, remedial action, and operations and maintenance phases of overall remediation. For other sites, LDEQ identifies potentially responsible parties and monitors cleanup activities; if responsible parties cannot be identified, staff oversee and direct cleanup activities.

Resource Conservation and Recovery Act (RCRA)

- **Solid Waste Disposal Act (SWDA)**
- **Hazardous and Solid Waste Amendments (HSWA)**

Section 3011: This section of RCRA funds programs covering:

- the promotion of activities that reduce or eliminate industrial, hazardous, or radioactive waste generation;
- ensuring that remaining waste is properly identified, managed and safely disposed;
- expediting the closure and cleanup of contaminated sites;
- collecting and reporting data on hazardous waste generation, receipt, treatment, storage and disposal;
- reviewing permit applications and writing permits;
- conducting hazardous waste determinations; and
- conducting compliance monitoring and enforcement activities.

Section 9003 (Subtitle I - Solid Waste Disposal): Leaking underground storage tank program --This program directs or conducts oversight for the investigation and remediation of sites where releases of petroleum products from underground storage tanks have occurred. Activities include conducting site contamination assessments, remedial action feasibility studies, environmental and human health assessments;

development of remedial action procedures; executing remedial actions; and documentation of effectiveness of remediation.

Sections 2007 and 9004 (Subtitle I – Solid Waste Disposal): Underground Storage Tanks (UST)
This program ensures that all underground storage tanks are in compliance as mandated by federal and state regulations and that underground storage tanks that are not active are properly closed. The primary objective of this project is to ensure that all active underground storage tanks in the State of Louisiana have been upgraded to meet EPA standards. To ensure that USTs are properly installed, LDEQ certifies all tank installers. Certification is determined by education/experience and testing requirements. Field staff inspects those UST facilities where upgrades have been completed in order to ensure that the USTs have been upgraded properly. A second objective is to ensure that inactive tanks are being closed according to EPA standards and do not pose a threat to human health and the safety of the environment.

Toxic Substances Control Act (TSCA)

Section 402: The TSCA Lead Program Development grant requires the State to demonstrate that a quality system is in place related to lead based paint activities. A QAPP has been developed and implemented to satisfy these requirements. The LBP program includes recognizing training providers, accreditation of individuals who perform lead based paint activities associated with target housing and child occupied facilities, tracking and inspecting lead abatement notifications, complaint investigations and public outreach.

Section 404: The State implements a program, that protects its citizens from asbestos hazards, that is funded by the USEPA under a TSCA Cooperative Agreement with the Office of Compliance Monitoring (OCM). The Department conducts management plan inspections in schools and state buildings to reduce exposure to asbestos hazards through compliance monitoring. Inspectors evaluate the compliance status of facilities using standard inspections and reports. Enforcement action is taken as warranted and tracked.

Appendix B Agency and Office Missions

LDEQ Mission

The mission of the Louisiana Department of Environmental Quality is to provide service to the people of Louisiana through comprehensive environmental protection in order to promote and protect health, safety and welfare while using sound policies regarding employment and economic development.

Office Missions

Office of the Secretary

The mission of the Administrative Program is to help the Department fulfill its mission. As the managerial branch of the Department, the Administrative Program will facilitate achievement of environmental improvements by coordinating the other program offices' work to reduce quantity and toxicity of emissions, by representing the Department when dealing with external agencies, and by promoting initiatives that serve a broad environmental mandate.

The Office of the Secretary is composed of a division and five sections:

- Legal Division
- Criminal Investigations
- Internal Audit
- Planning and Performance Tracking
- Special Projects
- Ombudsman/Communications

Regulation Development is part of Legal Division and is responsible for the efforts concerning proposed rules, final rules, rule hearings, and rule comments. This group also handles LDEQ regulations, environmental regulatory code documents, and the hazardous waste authorization program. One QA Representative has been designated for this group.

Office of Management & Finance

The mission of the Management and Finance Program is to provide effective and efficient support and resources to all of the Department of Environmental Quality offices and external customers necessary to carry out the mission of the department. The specific role of Support Services is to provide financial services, information services, human resource services, and administrative services (contracts and grants, procurement, property control, safety and other general services) to the department and its employees.

OMF has four divisions and the Contracts and Grants Section with specific responsibilities that serve the overall office mission stated earlier.

- Administrative Services Division ensures that the offices and divisions are provided with services in the following areas: procurement, motor pool, fleet management, central supply, mail operations, property management and telecommunications.

- Financial Services Division is responsible for coordinating budget preparation, travel reimbursement, accounts payable, accounts receivable, payroll, invoicing, the Motor Fuel Trust Fund, and all financial matters for the department. The division works closely with all divisions and offices on budgeting, expenditures, and monitoring.

- Information Services Division is responsible for providing the technical tools and expertise for data collection, information management and decision support to aid the department in fulfilling its mission.

  The Division is composed of three sections – The Information Services Section provides server, network, client, and application support; the Geographical Information Systems Section provides base maps and GIS support; the Document Imaging Section that provides records management support.

- Human Resources Division is responsible for processing of pay and classification issues and resolution of related-employee problems, orientation of new employees, interpretation of rules and procedures. The division works closely with all divisions and offices to provide safety and training support.

- Contracts and Grants Section handles contracts and grants for projects and data collection services.

Office of Environmental Services

The mission of the Environmental Services Program is to ensure that the citizens of Louisiana have a clean and healthy environment to live and work in for present and future generations. This will be accomplished by regulating pollution sources through permitting activities which are consistent with laws and regulations, by providing interface between the department and its customers, by providing a complaint hotline and meaningful public participation, by providing environmental assistance to small businesses, by providing environmental information to schools, and by working with communities and industries to resolve issues. The permitting activity will provide single entry/contact point for permitting, including a multimedia team approach; providing technical guidance for permit applications; enhanced permit tracking; and the ability to focus on applications with the highest potential for environmental impact.

The Office of Environmental Services is divided into three divisions; there are two permits divisions and an assistance division as follows:

- Water and Waste Permits Division;
- Air Permits Division; and

- Environmental Assistance Division.

Both permits divisions' mission is to issue permits with limits protective of the health of citizens and the environment for their respective areas. Within each permitting division, there are also staff members who issue registrations, licenses, and accreditations to individuals trained to use certain equipment and/or to conduct certain activities.

Within the Water and Waste Permits Division, there is a group that is tasked with performing environmental assessment reviews for potential loan projects resulting from the Municipal Facilities Revolving Loan Fund program and preparing the associated environmental assessment reports and "findings of no significant impact" (FONSI) reports. The group also provides engineering review of all projects submitted to the department as a result of the Municipal Facility's Revolving Loan Fund program. This includes planning and design review, phase inspections, and oversight during the construction phase.

In order to provide assistance to both business and private citizens, via outreach, education, and technical assistance, the Environmental Assistance Division includes the Small Business Assistance Program, as well as the Community and Industrial Relations Group, to name a few. The division also provides support functions for the two permits divisions, such as: performing administrative reviews of permit applications; coordinating all public notices; and conducting public meetings and hearings that pertain to permit actions.

Together, these divisions strive to deliver effective, efficient, and responsive customer service that is of the highest quality and is consistent with the goals of the Office as follows:

- All permits, registrations, licenses, and accreditations shall be protective of human health and the environment.
- All permits, registrations, licenses, and accreditations shall be developed and issued using standard operating procedures in conformance with regulations and approved guidance documents.
- OES will strive to issue permits, registrations, licenses, and accreditations that are timely and free of legal, grammatical and technical deficiencies
- All applications for permits, registrations, licenses, and accreditations will be reviewed and processed in a fair, consistent manner.
- All permits, registrations, licenses, and accreditations documents will be available to the public for review.
- All outreach services, documents, activities and presentations shall be in conformance with regulatory programs, timely, updated, and technically accurate.

Office of Environmental Compliance
The mission of the Environmental Compliance Program is to ensure the public health and of the people and environmental resources of Louisiana by conducting inspections of permitted facilities and activities, and licensing and registration of sources of

radiation, responding to chemical emergencies, and issuing enforcement actions. This program establishes a multimedia compliance approach, creates a uniform approach for compliance activities, assigns accountability and responsibility to appropriate parties, provides standardized instruction training for all investigation personnel, and provides for vigorous prosecution and timely resolution of enforcement actions.

The Office of Environmental Compliance is composed of the following divisions:

- Surveillance Division,
- Emergency and Radiological Services, and
- Enforcement Division.

The Surveillance Division ensures that industries comply with the state and federal regulations and their permits, administers regional surveillance activities, monitors ambient air and water quality and participates in interoffice projects in conjunction with the Office of Environmental Assessment and the Office of Environmental Services. The Surveillance Division consists of Regional Offices that are responsible for compliance inspections, and ambient sampling activities. Field activities are scheduled and carried out by staff in six regional offices, each responsible for the activities of a specific geographical region. Activities include industrial facility inspections, investigating complaints, operating sampling locations, and serving as liaisons with local industry, local government and the general public of each region.

The Emergency and Radiological Services Division ensures that industries and sites comply with the state and federal regulations and their licenses, administers regional surveillance activities, and respond to and monitors emergency events. In addition headquarters staff is responsible for issuance of licenses and registrations related to radiation protection and review of process safety plans.

The Enforcement Division is dedicated to protecting human health and the environment by taking swift action to enforce the state and federal regulations. The Division is committed to a fair and sensible approach to enforcement that is responsive to the needs of the citizens of Louisiana. The Enforcement Division is responsible for ensuring the compliance of the State's regulations by the issuance of compliance orders and penalty notices to violators. The Division works closely with the Surveillance Division and the Permits Division of the Office of Environmental Services.

Office of Environmental Assessment

The mission of the Environmental Assessment Program is to maintain and enhance the environment of the state in order to promote and protect the health, safety and welfare of the people of Louisiana. This program provides an efficient means to develop, implement and enforce regulations, inventory and monitor emissions, pursue efforts to prevent and to remediate contamination of the environment. This program pursues a unified approach to remediation, simplifies and clarifies the scope of the remediation process, increases protection of human health and the environment by addressing remediation consistently, allows for fast track remediation, where applicable, reduces

review time and labor, increases responsiveness to the public and regulatee, and increases accountability.

The Office of Environmental Assessment is composed of the following divisions:

- Laboratory Services Division;
- Air Quality Assessment Division;
- Water Quality Assessment Division;
- Environmental Technology Division; and
- Remediation Services Division.

Each division is responsible for multiple program areas as described below. Additionally, each division has an administrative section responsible for ensuring programs are administered according to approved budgets, strategic and operational plans, and state and federal statutes/regulations. Each administrative section may also be responsible for oversight and coordination of special projects and/or media-based programs that have been separated into different offices/divisions based on the reorganization of LDEQ.

Laboratory Services Division is responsible for providing timely and effective laboratory services to the department and laboratory accreditation services. The division works closely with all divisions and offices of LDEQ.

The Air Quality Assessment Division is composed of four sections:

- Data Collection and Evaluations,
- Engineering Support,
- Air Monitoring, and
- SIP Development.

Data Collection and Evaluations Section: responsible for the processing of ambient air data, performing quality control, and entering the data into state and national databases. This group is also responsible for analyzing the data to determine compliance with regulatory standards, indicators of pollution, and trends in air quality. The section also utilizes this data to support the ozone action program. It also participates in special air monitoring projects. This section is also responsible for maintaining and managing the agency's air emissions inventory and toxic release inventory systems data inventories (TRI, Emissions Inventory, and TEDI).

Engineering Support Section: responsible for performing Urban Airshed modeling, and provides air quality engineering support for the department. This group is also involved in the development of State Implementation Plans (SIPs) and NSPS/NESHAP delegation. And, lastly, this group is tasked with addressing stack test issues and providing regulatory interpretation regarding air regulations.

Air Monitoring Section: responsible for overseeing the operation of the statewide ambient monitoring network including planning, operation and maintenance.

SIP Development Section: composed of two sections including SIP Development Group and the Auto Inspection and Maintenance Program Group. This section is responsible for the formulation and submittal of the department's air quality planning efforts. Air quality planning includes the vehicle emissions testing program and the state implementation plans (SIPs) which cover transportation conformity, general conformity, status non-attainment areas, and air quality status.

The Water Quality Assessment Division is composed of three sections:

- Water Quality Survey Section,
- Standards, Assessment, and Non-point Sources (SANS) Program Section, and
- Water Quality Modeling Section.

Water Quality Survey Section: This survey group is responsible for performing research and field surveys to acquire information on watersheds not supporting water quality standards and listed for TMDL development. These units coordinate with both the SANS and Water Quality Modeling Sections to determine types of surveys and any additional survey requirements.

Logistics and Procedures- Primarily one Environmental Scientist Staff position coordinating with the two survey units handles these responsibilities. This position performs research to acquire information on equipment, methods and supplies needed to support the watershed surveys and improve efficiency in performing surveys and quality of data produced. This position also coordinates the development and updates of standard operating procedures and QA documents, participates in training employees and ensures equipment is properly maintained and available for surveys.

Standards, Assessment, and Non-point Source Section: composed of two groups

- Standards and Assessment: this group is responsible for water quality standards implementation, priority water body lists, assessing water quality data and water quality status, and reporting and planning efforts.

- Non-point Source: this group is responsible for implementing the state’s water non-point source pollution program to reduce pollution runoff from various land types such as urban, agricultural and forested areas. The group provides oversight of grants for data collection and analysis, outreach activities, and development of watershed action plans. The non-point source program is also active in the TMDL development process and development of implementation plans.

Water Quality Modeling Section: This section develops Total Maximum Daily Load (TMDL). This section performs this function via teamwork with the SANS and Water Quality Survey groups. The Water Quality Modeling Section is also responsible for providing water quality engineering support for the department.

The Environmental Technology Division is responsible for providing technical assistance to various programs throughout the office and agency. There are three primary technical areas including engineering, geology, and toxicology and a program area as follows:

Engineering Sections
There are two engineering groups within the Environmental Technology Division. Because each engineering group has distinct functions, a QA Representative has been designated within each group.

- Hazardous Waste Engineering Group: provides engineering review for RCRA permits, witnessing trial burns, and inspections of Continuous Emission Monitoring systems. It also provides hazardous waste tank and ancillary equipment specifications and calculates specifications for secondary tanks and containment areas.

- Solid Waste Engineering Group: performs technical review and approval of all solid waste permits as well as providing solid waste engineering support throughout the department. The group is also charged with review of pilot studies for beneficial re-use of solid wastes, engineering applications of tire chips, and answering general questions about sewage sludge.

Geology Section
The geology groups function differently than the engineering groups. Each geology group is responsible for similar functions and coordinates with the three remediation groups outlined below under Remediation Services Division. There are three geology groups responsible for different geographic areas of the state as follows:

- Geology Group 1 is responsible for the Northeast and Southeast Regions,
- Geology Group 2 is responsible for the Southwest and Acadiana Regions, and
- Geology Group 3 is responsible for Capitol and Northwest.

Responsibilities for the geology groups include processing and reviewing groundwater certifications, providing technical review of groundwater and other permits, acting as team leader and/or team support on remediation projects, responding to citizen's complaints regarding groundwater issues, and performing inspections of ground water monitoring. One position has been designated as QA Representative for all three sections.

Toxicology Section
This group is tasked with providing toxicological support to the Permits Division, reviewing risk assessments, performing Risk Evaluation / Corrective Action Program (RECAP) reviews, and participating in the agency-wide development of risk based standards.

Aquifer Evaluation and Protection Section
This group is charged with implementing the Wellhead Protection Program and maintaining a state database on location of community public drinking water wells and potential sources of contamination to those wells. It is responsible for implementing the Source Water Assessment Program that is designed to assess susceptibility of ground water and surface water public drinking water sources to contamination. It is also responsible for performing ambient groundwater monitoring to provide baseline data on 14 major aquifer systems statewide and collecting Global Positioning System data on contaminated groundwater areas.

Remediation Services Division implements the agency's remediation process that includes six sub-processes: discovery, triage, investigation, remediation, monitoring and completion. Site work within the Remediation Services Division is prioritized based on risk to human health and the environment, on the availability of funding sources, and on a first-come, first-serve basis.

The division is managed in two sections: remediation section and support section.

Remediation Section
These remediation groups coordinate with the three geology groups outlined above for the geology section. Each of the remediation groups is responsible for two of the six regions defined by the agency as follows:

- Remediation Group 1 is responsible for the Northeast and Southeast Regions,
- Remediation Group 2 is responsible for the Southwest and Acadiana Regions, and
- Remediation Group 3 is responsible for Capitol and Northwest.

The Remediation Groups provide oversight for all remediation projects. Responsibilities of staff include serving as team leader and/or team support on projects involving remediation of soil and/or groundwater. The project team leader is the single point-of-contact for the regulated community and the general public.

Support Section
The Support Section of the Remediation Services Division is responsible for grants management, contracts assistance, remediation database management, information management, quality assurance, cost documentation, cost recovery, and other administrative support functions for the division. There is one QA Representative designated for the entire division; the position is located in the Support Section.

Office Organizational Charts
The LDEQ Organizational Chart is located on the LDEQ public web site at www.LDEQ.state.la.us under organizational charts.

Appendix C Personnel Responsibilities

C.1 LDEQ Personnel

All agency personnel are responsible for ensuring that items and services within their areas of responsibility meet the needs and expectations of the customer and for implementing elements of the agency quality system.

Individuals responsible for establishing or executing elements of the quality system may delegate portions of the work but will retain responsibility for the accomplishment of such work. Managers, supervisors, and other personnel shall, as appropriate, review and respond to any deficiencies, nonconformities, findings, or significant conditions related to their areas of responsibility. All personnel are responsible for discharging their duties in accordance with applicable plans and procedures.

C.2 Secretary

The Secretary is responsible for directing LDEQ programs and operations, including the LDEQ quality system. The Secretary oversees the Executive Management team and reports to the Governor.

C.3 Executive Management

Executive Management includes the Deputy Secretary, the Undersecretary, and the three Assistant Secretaries, and is responsible for planning, monitoring, evaluating, and improving environmental programs performed by, and quality systems implemented through, their respective offices. They are also responsible for ensuring that environmental programs produce the type and quality of results expected. Executive Management reports to the Secretary.

C.4 Administrators

Administrators are responsible for planning, monitoring, executing, evaluating, and improving environmental programs performed by, and quality systems implemented through, their respective divisions. Administrators ensure that environmental programs and associated work activities performed within their organizations produce the type and quality of results expected. Administrators report to Assistant Secretaries or the Undersecretary.

C.5 QA Manager

The QA Manager reports to the Deputy Secretary and is responsible for coordinating the development and implementation of the LDEQ quality assurance program, including the following activities:

- coordinates the development, review, approval, and implementation of the agency QMP and agency-wide quality assurance procedures;

- coordinates with EPA Region 6 the approval of any exceptions to requirements contained in the agency QMP and agency-wide quality assurance procedures;
- ensures that official copies of approved agency-wide quality assurance procedures are maintained;
- monitors the development and implementation of QAPPs, and corrective actions resulting from assessment activities;
- oversees the development and/or implementation of training and certification programs for the QA Officers, QA Representatives, and QA audit teams;
- oversees management systems reviews and other management or technical assessment activities, as appropriate;
- coordinates QA Team activities;
- serves as a liaison to quality assurance staff of federal oversight agencies;
- provides assistance in the area of quality assurance to agency management, project managers, QA staff, regulated entities, contractors and the public.

C.6 QA Advisor

The QA Advisor reports to the Deputy Secretary and provides QA support to the QA Manager, as needed. The QA Advisor performs the following support functions:

- assists the QA Manager and QA Officers as needed to resolve corrective actions and audit results; and
- assists the QA Manager and QA Officers with evaluation of the QA training.

C.7 QA Officers

The QA Officers report to the Assistant Secretaries or Undersecretary and are assigned to various offices of the department to serve as the principal quality assurance staff member in each Office. They represent their respective offices as members of the LDEQ QA Team. They perform the following QA tasks:

- oversee the development, approval, implementation, and maintenance of written QA documents (e.g., SOPs and QAPPs);
- assist Managers, Supervisors, QA Representatives and project managers in developing and implementing quality systems;
- prepare and distribute annual plans for assessments (MSAs and TSAs);
- determine the team leader for assessments;
- in the event of a nonconformity with the QMP, recommend to Division Administrators and the Assistant Secretaries, that work be stopped or redirected in order to safeguard programmatic objectives, worker safety, public health, or environmental protection;
- work with the QA Representatives and project managers, as necessary, to identify quality-related problems and ensure timely and effective corrective action;
- concur with proposed corrective actions and verifications;
- receive and maintain assessment records;

- monitor the implementation of corrective actions;
- report on the status of corrective actions;
- provide technical expertise and/or consultation on quality services;
- coordinate QA training for staff in their respective offices;
- participate in data quality assessments;
- assess the effectiveness of quality systems in their offices; and
- prepare annual QA reports.

C.8 QA Representatives

QA Representatives serve as the section/unit contact on all quality assurance matters and assist the supervisors, project managers and the QA Officer with planning, monitoring, evaluating and improving the quality assurance system within the respective sections/units. The supervisors and/or Administrator select QA Representatives with input from the QA Officers. QA Representatives perform the following tasks:

- assist with preparation and revision of QAPPs, specific project plans, and SOPs as necessary to ensure that current and complete documentation of QA activities is incorporated in each environmentally related measurement activity of the section/unit. Consult with the QA Officer in these matters as needed.
- assist with QA activities such as data quality assessments within the section to ensure that data of known quality and integrity are produced by the section that comply with the decision maker's data quality needs;
- document areas where there may be problems in maintenance of quality data;
- consult with the QA Officer, supervisors and project managers as needed to resolve corrective actions and audit results;
- assist QA Officers with quality training; and
- serve as representatives on office QA teams for audits, technical assessments, readiness reviews and data quality audits, as needed.

C.9 Supervisors: Managers and Supervisors

Managers and Supervisors, herein referred to as Supervisors, are responsible for planning, monitoring, executing, evaluating, and improving environmental programs performed by, and quality systems implemented in, their respective sections/units. These supervisors serve as the principal management staff whose function is to ensure that programmatic activities (such as inspections, permits, enforcement actions, and remediation) are carried out in accordance with state and federal requirements. Supervisors are responsible for ensuring that environmental activities within their areas of responsibility are performed in accordance with applicable plans and procedures, work performance is measured against specifications, and appropriate management oversight and inspection is accomplished. Managers report to Administrators; Supervisors report to Managers or Administrators. These Supervisors perform or assist with the following QA tasks:

- maintain a thorough knowledge of work activities, commitments, deliverables, and time lines associated with their respective sections/units;
- assist and provide support to the QA Officer and QA Representatives in the development and implementation of QA/QC procedures for the section/unit;
- review and approve or concur with QA documents and SOPs generated within the section/unit, as appropriate;
- review the data produced by the section/unit related to environmental measurement activities to determine if it is adequate, of known quality, and can be assessed to determine if it is acceptable for its intended use by the program; and
- ensure that necessary corrective actions are carried out in a timely manner to minimize data loss.

C.10 Environmental Scientist Staff (DCL-A) and Seniors (DCL-B)

Staff in these positions are the experts in their fields and report to Managers or Administrators. They perform the following QA tasks:

- maintain a thorough knowledge of work activities, commitments, deliverables, and time lines associated with their respective sections/units;
- assist and provide support to the QA Officer and QA Representatives in the development and implementation of QA/QC procedures for the section/unit;
- review and approve or concur with QA documents and SOPs generated within the section/unit, as appropriate;
- review the data produced by the section/unit related to environmental measurement activities to determine if it is adequate, of known quality, and can be assessed to determine if it is acceptable for its intended use by the program; and
- participate, as required, on corrective action teams by providing technical input to help minimize data loss.

C.11 Project Managers

Project managers are assigned to manage environmental projects, including work performed by contractors, to its conclusion, and are accountable for the successful completion of project-related tasks and objectives. Project managers are technical staff that are selected by supervisors or administrators. Project managers perform the following tasks:

- maintain a thorough knowledge of work activities, commitments, deliverables, and time lines associated with projects;
- develop necessary lines of communication and good working relationships between division staff and personnel of other divisions and organizations participating in a project;
- ensure that the supervisors and the LDEQ/OMF grants or contracts manager are informed of changes, revisions, or additions to the project;

- negotiate a list of expectations with supervisors and the grant/contract manager to ensure a clear understanding of the factors that may affect performance;
- monitor the effectiveness of the project quality system;
- elevate QA problems and issues requiring resolution to the Division Administrator, or designee(s), and QA Officer for disposition, when appropriate;
- assist in preparing contracts and intergovernmental agreements;
- ensure project contractors understand their commitment to meet deadlines and schedule commitments; and
- enforce corrective action measures to ensure contractors meet deadlines and scheduled commitments.

C.12 Contract Managers

Contract Managers in OMF, who report to the Undersecretary, provide fiscal and reporting oversight for all agency-generated contracts and perform the following tasks:

- assist in preparing contracts, grants and intergovernmental agreements;
- maintain a thorough knowledge of commitments, deliverables, regulations, policies and time frames associated with grants and contracts;
- develop necessary lines of communication and good working relationships between the agency staff and outside entities participating in a grant or contract;
- ensure the LDEQ Financial Services staff are informed of changes, revisions, or additions to the contract or grant project; and
- advise supervisory personnel when grant or contract timetables, tasks, and coordination procedures are not being met, as communicated by EPA or LDEQ contact persons.

Appendix D Preparation, Review, Approval, and Distribution of the QMP

D.1 Preparation, Review and Approval

LDEQ will maintain a QMP utilizing the outline found in EPA *Requirements for Quality Management Plans, EPA QA/R-2*, (latest version). The QMP will clearly state any interpretations, limitations, or exceptions to those requirements. The QA Manager oversees the agency QMP review and revision process.

The QMP will be reviewed and revised with the involvement and assistance of program and quality assurance staff. EPA will review and comment on the agency QMP prior to its approval and implementation. Unless other arrangements have been agreed upon, EPA will be given 60 calendar days to review the QMP.

The agency's QMP shall be approved prior to implementation. The signatures of the Secretary, the Executive Management, and the QA Manager as well as the EPA Region 6 QA Manager shall document approval of the agency QMP.

D.2 LDEQ Contractors

Contractors shall be bound by requirements delineated in the LDEQ QMP to the extent these requirements pertain to the goals and objectives of their work.

D.3 Distribution

The QA Manager will ensure that the approved QMP is available electronically to all LDEQ personnel and the public. The QA Officers will distribute copies of the agency QMP to LDEQ personnel and contractors whose work requires knowledge of and adherence to requirements and specifications contained in the document.

D.4 Maintenance

The QA Manager or designee shall maintain an approved copy of the current QMP on the LDEQ intranet.

D.5 Revisions

The QMP shall be reissued annually or revised and reissued within 120 days of significant changes or reorganizations, whichever occurs first.

If the entire QMP is current, valid, and accurately reflects the agency's goals and policies, the annual reissuance may be done by a certification that the plan is current, to include a copy of new, signed approval pages for the QMP.

The QA Manager will ensure that the QMP review and approvals are achieved within the stated timelines.

D.6 Expedited Changes

Expedited changes to the current QMP may be approved to reflect changes in organization, mission, and key personnel, address deficiencies and nonconformities, improve operational efficiency, or accommodate unique and unusual circumstances. Expedited changes to the agency QMP are effective immediately upon approval of the QA Manager.

Expedited changes to the QMP and the reasons for the changes shall be documented. Changes shall be incorporated into the QMP during the annual revision process or within 120 days in cases of significant changes. Expedited changes to the QMP shall be distributed as described above.

Appendix E Preparation, Review, Approval, and Distribution of QAPPs

Quality Assurance Project Plans (QAPPs) will be prepared for projects involving environmental work utilizing the information provided in EPA *Requirements for Quality Assurance Project Plans for Environmental Data Operations, EPA QA/R-5* (latest version).

QAPPs will be prepared, reviewed and approved using the following procedures.

E.1 Preparation, Review and Approval

Control of QA documents is provided through use of a control header and Document Review and Revision Record page. Document control information appears in the header on the upper right corner of each page, including the title page.

EXAMPLE:

Short Title
Official Filename
Document Prepared Date (Month, Day and Year)
Page X of Y

The file name is used for posting QAPPs and SOPs to the LDEQ intranet. The file name must be in the following format of **qapp_xxxx_rxx** or **sop_xxxx_rxx**, where **"qapp"**identifies a quality assurance project plan and **"sop"** identifies a standard operating procedure; "**xxxx**" is the unique 4-digit file number that is assigned by the QA Team to each QAPP or SOP; and "**rxx**" is the revision number for the QAPP or SOP with "**r**" standing for revision and "**xx**" the 2-digit revision number. The original issue of a document is r00.

The Document Review and Revision Record follows the title page. This record provides historical information on the review with or without revision of the document. During the revision process, changes may be recorded and tracked. For minor revisions, the document owner briefly describes the change(s) and may reference the affected section(s). For major revisions, the document owner may state, "broad revisions throughout document".

QAPPs will be systematically prepared with the involvement and assistance of program and quality assurance staff. EPA will be afforded an opportunity to review and comment on proposed QAPPs that receive federal funding prior to their approval and implementation. Unless other arrangements have been agreed upon, EPA will be given a minimum of 60 calendar days in which to review QAPPs. Review comments, responses to comments, and revisions shall be documented and provided to reviewers, upon request.

QAPPs shall be approved prior to the initiation of environmental work activities. At a minimum, the signatures from appropriate project managers and QA Officers shall document QAPP approvals. The Assistant Secretary, QA officer and Division Administrator may require additional approval signatures.

The LDEQ approved QAPP is forwarded to EPA where a Q-Track number system is used to monitor the approval process at EPA. In the event the EPA Project Officer or QA Officer does not provide written approval of, or comments describing deficiencies in, a QAPP within 60 days, the QA Manager will notify the EPA Region 6 Quality Assurance Manager of the failure by EPA to respond in a timely manner and will request the QAPP approval be expedited so that environmental work activities can proceed as planned.

E.2 LDEQ Contractors

Environmental work conducted jointly by LDEQ and contractors or conducted solely by LDEQ contractors shall be planned and documented in QAPPs. QAPPs involving contractors shall be prepared, reviewed, and approved as described above.

In addition to the approval signatures described above, QAPPs involving contractors shall, at a minimum, also be approved in writing by the contractors designated project representative and the contractors senior project quality assurance representative and by any other individuals required by the Assistant Secretary, QA Officer, project manager, or QA Representative; the contractor's designated project representative, or the contractor's senior project quality assurance representative. All projects involving EPA funds require EPA approval. Projects involving state funds do not require EPA approval.

E.3 Distribution

Project managers or QA Officers will distribute copies of QAPPs to the individuals listed in section A3 (Distribution List) or provide notice of availability on the Intranet. At a minimum, this distribution will include participating members (offices, divisions, sections, and regional offices) within LDEQ, participating contractors, participating laboratories and EPA. QA Officers and contractor representatives shall ensure copies of QAPPs are made available electronically to personnel performing environmental activities governed by these documents.

E.4 Maintenance

The QA Manager maintains all QAPPs on the intranet with approval dates noted. Obsolete QAPPs will be retained for three years from the end of the project period, unless a longer retention period is specified in a grant, record retention schedule, or other governing document.

E.5 Revisions

Until environmental work is completed, QAPPs shall be revised as necessary and reissued annually on their anniversary date or revised and reissued within 120 days of significant changes, whichever is sooner. QA Officers are responsible for notifying staff 120 days in advance of required review dates. If the entire QAPP is current, valid, and accurately reflects the project goals and the organization's policy, the annual reissuance may be done by a certification that the plan is current, to include a copy of new, signed approval pages for the QAPP. The revision level and preparation date remains the same with only a

change in the approval date noted on the Document Review and Revision Record page.

The LDEQ approved QAPP revisions or certification is forwarded to EPA where a Q-Track number system is used to monitor the approval process at EPA. In the event the EPA Project or QA Officer does not provide written approval of or comments describing deficiencies in a QAPP within 60 days, the QA Manager will notify the EPA Region 6 Quality Assurance Manager of the failure by EPA to respond in a timely manner. The current QAPP is considered valid and LDEQ will follow the plan while awaiting resolution with EPA. Within the 60 day window EPA will note any concerns or deficiencies; LDEQ will respond to EPA concerns within 60 days of receipt of EPA's comments.

E.6 Expedited Revisions

Expedited changes to QAPPs may be approved to reflect changes in project organization, tasks, schedules, objectives, and methods, address deficiencies and nonconformances, improve operational efficiency, and accommodate unique or unanticipated circumstances. Expedited changes are effective immediately upon approval by the QA Officer and the QA Representative. Expedited changes to QAPPs and the reasons for the changes shall be documented. Changes to QAPPs shall be distributed to all individuals and organizations contained in the QAPP distribution list.

Expedited changes shall be reviewed, approved, and incorporated into a revised QAPP during the annual revision process or within 120 days of the initial approval in cases of significant changes.

E.7 References

1. EPA Guidance for Quality Assurance Project Plans. EPA QA/G-5. EPA/240/R-02/009. December 2002.
2. EPA Requirements for Quality Assurance Project Plans. EPA QA/R-5. EPA/240/B-01/003. March 2001.
3. Guidance for the Data Quality Objectives Process. EPA QA/G-4. EPA/600/R-96/055. August 2000.
4. Data Quality Objectives Process for Hazardous Waste Site Investigations. EPA QA/G-4HW. EPA/600/R-00/007. January 2000.
5. Guidance on Technical Audits and Related Assessments for Environmental Data Operations. EPA QA/G-7. EPA/600/R-99/080. January 2000.
6. Guidance for Data Quality Assessment: Practical Methods for Data Analysis. EPA QA/G-9. EPA/600/R-96/084. January 1998.

Management Questionnaire For Initiating Planning Of Environmental Monitoring Projects

Date: _____

Originators: _____

_____

1. What are the media and/or regulatory programs being studied (air, water, groundwater, radiation, underground storage tanks, and remediation)?

2. What is the concern or issue (explain)?
    a. General Compliance with Regulations

    b. Public Health

    c. Ecological Health

    d. Other

3. What is the basis for initiating the project? (new regulatory requirement, expanding program, complaint, spill, etc.)

4. What are the applicable statutory and/or regulatory programs or requirements?

What are the non-regulatory program guidelines?

5. What is the population of interest (explain)?
    a. Geographical
        1. Watershed

        2. Specific Geographic Area (e.g. 5-parish non-attainment area for Ozone)

        3. Sole source aquifer

        4. Other

    b. Temporal
        1. High Temperature Season

        2. Annual Study

        3. Rainfall dependent

        4. Other

6. What are the parameters of interest (explain)?
    a. Chemical

    b. Physical

    c. Biological

    d. Other

Formulate the Principle Study Question: _____

_____

_____

_____

Examples:

- Are national ambient air quality standards met for criteria pollutants across the state?
- Are ozone standards attained in the 5-parish Baton Rouge Non-attainment area?
- Does a contaminant pose a human health or ecological risk?
- Is a remedial site suitable for future residential development?
- Has a release occurred as indicated by contaminant concentrations being significantly greater than background levels?
- Are water quality standards being attained for regulated parameters throughout the state?

7. What are the sources of data?
    a. Direct measurement

    b. Indirect measurement

    c. Historical data

8. Who will be involved with final planning and implementation of the project?
    a. Data Collectors/Providers required to meet needs
        1. Sample Collection

        2. Sample Analysis

        3. Research Existing Data

    b. Project Assessors
        1. Management Reviews

        2. Technical System Reviews

        3. Data Quality Reviews

c. Data Users

d. Decision Makers

e. Stakeholders (customers, regulated entity, contractors, etc.)

9. What are the deadlines?

10. What are the available resources?

11. What are the constraints?

12. What are the assumptions?

13. What are the potential outcomes?

14. How will each outcome be addressed?

Planning Team Questionnaire/Checklist For Finalizing Environmental Monitoring Project Plans

Date: _____

Project Title: _____

_____

Planning Team:

Facilitator: _____

Project Manager/Team Leader: _____

Field Representatives: _____

_____

Laboratory Representatives: _____

_____

Project Assessors: _____

_____

Data Evaluators: _____

_____

_____

QA Representatives: _____

_____

Data Users: _____

_____

Others: _____

_____

Note: As you proceed through the questionnaire, note the following for each question or section:

- all SOPs, documents, records, and reports that may be required and/or produced
- training requirements
- equipment and supply requirements
- quality control processes that can be implemented

1. Does the principle study question need to be refined? If yes, how?

2. What are the regulatory and/or non-regulatory action levels? (Start building table)

3. What are the sampling requirements?

    a. Methods and/or SOPs (add to table if different for different parameters); do these documents need to be developed or updated?

    b. Number of samples (including quality control samples)

    c. Where to sample/accessibility

    d. How often to sample

    e. Equipment

    f. Supplies

    g. Transportation

4. What are the analytical requirements?

a. What methods/SOPs will give detection/quantitation levels low enough to assess against action levels? (Add methods and detection levels to table); do these documents need to be developed or updated?

b. Project specific precision and accuracy requirements

c. Sample receiving/storage/handling requirements

d. Equipment

e. Supplies

5. How will data be managed and by whom? This is documented in Section B10 of the QAPP or associated SOPs to trace the path of data from generation to their final use and storage.

   a. Field data

      i. Recording

      ii. Transfer

      iii. Formats

      iv. Reduction

      v. Maintenance

   b. Lab data

      i. Recording

      ii. Transfer

iii. Formats

iv. Reduction

v. Maintenance

6. Who will perform assessments of the project's progress and implementation according to the plan? How will the progress and implementation be evaluated? Identify SOPs that will be used, developed or updated if applicable. (Document in Section C1 of the QAPP)

7. Who will verify data for completeness, collected at the right location, frequency, and sampling method, and analyzed by the specified method? How will each item be verified, when will it be verified, and what documentation is necessary? Identify SOPs that will be used or need to be developed or updated if applicable. (Document in Section D2 of the QAPP)

8. Who will validate data to ensure that it meets all the data quality objectives specified in the QAPP? How will each item be validated, when will it be validated, and what documentation is necessary? Identify SOPs that will be used or need to be developed or updated if applicable. (Document in Section D2 of the QAPP)

9. Who will determine if the data is of the right type, quality, and quantity to support the environmental decision-making for the project? Outline the data assessment process that will be used to determine data confidence, as appropriate. Describe the documentation for the usability determination. (Document in Section D3 of the QAPP)

Documents and Records List

(including SOPs or other guidance documents)

Description	Where/How Maintained	How long?

Reports Produced

Description	When?	For Whom?	Disposition

Training Requirements

Description	**Who**

Quality Control Practices/Processes

Activity/Task	Quality Control	Responsible Party

Equipment and Supplies List

EQUIPMENT	SUPPLIES	OTHER

Appendix F Preparation, Review, Approval, and Distribution of SOPs and Forms

Standard Operating Procedures (SOPs) will be prepared for activities as training aids or when their absence could lead to errors or omissions. This procedure will be followed by all QA Officers and QA Representatives who will ensure that DEQ staff understand the steps to follow when developing or revising SOPs.

Two format options can be used for LDEQ SOPs. Staff may use either the format that is outlined in the Template for SOPs posted on the Intranet or EPA's SOP guidance, *EPA Guidance for Preparing Standard Operating Procedures (SOPs). EPA QA/G-6. EPA/ 240/B-01/004. March 2001.* Both formats include the elements described in this Appendix.

Forms include items such as route slips, standard letters, checklists, inspection forms, templates, chain of custody forms, or other standard forms as described in QAPPs, SOPs and the PPM. These documents when completed become quality records and are managed as noted in Section 5.2 (Records).

F.1 SOP Preparation and Review

When it has been determined that an SOP is needed for an activity, the staff involved in the activity initiates development. Management of an area approves the development of an SOP and selects the review team. The Document Owner or Team Leader coordinates the preparation efforts and ensures that the SOP is reviewed and approved. The QA Representative or the QA Officer will manage and control the SOP, once it is developed and approved.

NOTE: If activities within a section or group will have an impact on other sections or groups within the agency, the SOP must be reviewed by a representative of those sections/groups and may become a Division-level or Office-level SOP (see Section F.2).

F.1.1 Development of a New SOP

1. Management or its designee selects a person or team to develop SOP and determines SOP review chain which includes QA Officer or QA Representative and the final approval authority.
2. Team Leader or document owner or designee obtains a filename for the SOP from the QA Officer. SOP document control information is found in Appendix E, E.1.
3. Document owner or team leader and the development team drafts the SOP.
4. Document is forwarded to designated reviewers and the QA Officer for comments. Comments are incorporated into draft, if applicable. Once the draft is finalized it is forwarded to the final approval authority.
5. Team leader or document owner or designee updates the Review and Revision Record to indicate approval date. The QA Officer receives signed approval page and electronic version (in Word) to post on intranet.

6. QA Officer or designee posts the SOP on intranet and notifies team leader or document owner and staff who use the document and the QA Representative that document is available for use. QA Officers ensure the electronic versions and signed approval pages of the SOPs are maintained in the LDEQ database.

F.1.2 SOP Review with No Revision

SOPs must be reviewed a minimum of every two years unless a more frequent review cycle is specified in the individual SOP. The date of approval signature is used to determine when the next review is due. If there are co-approvals, the latest approval signature date is used to determine when the next review is due.

If no revisions are needed, the document owner or team leader or designee prints a copy of the document with a new title page and sends the package to approver(s). After approval(s), the document owner or team leader or designee updates the Document Review and Revision Record on page 2 of the SOP as follows: On a new row, the re-approval signature date is entered, and under Record of Activity, enters "Reviewed with no revisions". This date should match the approval signature date on the title page. Either the control header information or the revision number is changed. The process posting continues per F.1.1.

F.1.3 SOP Review with Revision

If there are revisions, the Document Owner or Team Leader or designee creates a new title page and then begins at step 4 of section F.1.1. He will route the document to the original reviewers, if possible. It may be necessary to consult with area management to identify a new development team or designated reviewers. On the new title page he updates the development team, if necessary, and changes the revision number to the next number. In the control header, he updates the file name to reflect the next revision number by changing the "r" number to the next consecutive number and changes the "Document Prepared date" to that day's date. Each time the document is changed in that particular revision process, the document prepared date should be updated. The "r" number does not change with each draft. It is considered DRAFT until there is a final approval signature.

During the revision process, it may be necessary to start using the proposed change(s) prior to posting on the intranet. The person with approval authority for the SOP may approve the change on an interim basis (no more than 60 days). Sending the proposed change by email to the affected staff can indicate this approval. A copy of the email will also be sent to the QA Representative for the affected area. If the SOP change has the potential to affect other areas, the email notice of the proposed change will be sent to the QA Officer as well, who is responsible for assessing the impact of the proposed change on the system.

F.2 Approval

SOPs will be approved as follows:

SOP Type	SOP Review and Approval Authority
Agency-wide SOPs	Designated reviewers are the Assistant Secretaries and Undersecretary, who may assign additional reviewers as necessary. The Deputy Secretary has final approval authority for changes to these documents. This authority may be assigned to a designee.
Office-wide SOPs or SOPs Shared by by Divisions	The respective divisions' administrators have final co-approval authority. The administrators may delegate this approval authority to Section Managers or ES Seniors.
Division-level SOPs or SOPs Shared by Sections or Groups	The administrator has final approval authority for changes to these documents. The administrator may delegate this approval authority to Section Managers or ES Seniors.
SOPs for Single Sections or Groups	The Section/Group Manager has final approval authority for changes to these documents. The Manager may delegate this approval authority to Supervisors, ES Seniors, or ES Staff.

F.3 Distribution

QA Officers will notify groups affected by a new or revised SOP by e-mail after it is posted on the Intranet.

Environmental work conducted jointly by LDEQ and contractors or conducted solely by LDEQ contractors shall be planned and documented in QAPPs. The project manager shall ensure that contractors are aware of any changes in SOPs they are required to use and distribute copies to the individuals listed in Section A3 (Distribution List) of the QAPP.

F.4 Maintenance

The QA Manager ensures that up-to-date versions of all SOPs are maintained on the Intranet. The SOPs are grouped by area (Department-wide, Office/Division/Section or Unit) to help staff identify applicable documents. Electronic copies and the scanned approval pages for these documents will be retained for a minimum of three years, unless a longer retention period is specified in a grant, record retention schedule, or other governing document.

F.5 Forms

Forms may be attached to an SOP or listed in the References section of the SOP. If the standard form exists as a separate document, then the group that uses the document will control the form and a backup system must be provided.

Forms are controlled using a Footer containing the following information:

- Font size 10
- Left justified
- Official file name and Revision No.
- Document Prepared Date (Month, Day, and Year)

EXAMPLE: form_4674_r00
06/25/02

The file names use the following format: **form_xxxx_rxx**; where "**xxxx**" is the unique 4-digit file number that is either the same as the SOP if attached, or assigned by the QA Officer. Series of numbers are assigned to each office as follows:

- OSEC 3000
- OMF 4000
- OEA 5000
- OEC 6000
- OES 7000

Management in sections that utilize standard forms is responsible for ensuring that the forms are kept current. Forms will be revised as needed. Once it is determined that a standard form needs to be developed or revised, all affected parties must be involved in the process. Levels of review and approval are the same as for SOPs.

Appendix G List of QAPPs with Schedule for Submittals and Contacts

See table on following pages